

Owner's Manual

OmniSmart™ RMX 500 VA

*120V Input/Output UPS System
Intelligent • Line-Interactive • Industrial Cabinet*



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SAVE THESE INSTRUCTIONS

This manual contains instructions and warnings that should be followed during the installation, operation and storage of all Tripp Lite UPS Systems. Failure to heed these warnings will void your warranty.

UPS Location Warnings

- Install your UPS indoors, away from excess moisture or heat, conductive contaminants, dust or direct sunlight.
- For best performance, keep the indoor temperature between 32° F and 104° F (0° C and 40° C).
- Leave adequate space around all sides of the UPS for proper ventilation.
- Do not install the UPS near magnetic storage media, as this may result in data corruption.

UPS Connection Warnings

- The UPS contains its own energy source (battery). The output terminals may be live even when the UPS is not connected to an AC supply.
- Do not operate your UPS without connecting its input and output grounds.
- If the UPS receives power from a motor-powered AC generator, the generator must provide clean, filtered, computer-grade output.

Equipment Connection Warnings

- Do not use Tripp Lite UPS Systems for life support applications in which a malfunction or failure of a Tripp Lite UPS System could cause failure or significantly alter the performance of a life-support device.

Battery Warnings

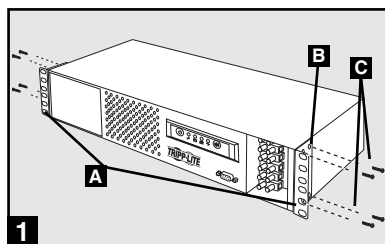
- Your UPS does not require routine maintenance. Do not open your UPS for any reason except battery replacement. There are no user-serviceable parts inside.
- Because the batteries present a risk of electrical shock and burn from high short-circuit current, observe proper precautions. Unplug and turn off the UPS before performing battery replacement. Use tools with insulated handles, and take caution that the battery terminals do not contact the metal housing of the UPS. Replace the existing batteries with the same number and type of new batteries (Sealed Lead-Acid). Do not open the batteries. Do not short or bridge the battery terminals with any object. Tripp Lite offers a complete line of UPS System Replacement Battery Cartridges (R.B.C.). Visit Tripp Lite on the Web at www.tripplite.com/support/battery/index.cfm to locate the specific replacement battery for your UPS.
- The UPS batteries are recyclable. Refer to local codes for disposal requirements, or in the USA only call 1-800-SAV-LEAD or 1-800-8-BATTERY (1-800-8-228-8379) or visit www.rbc.com for recycling information. Do not dispose of the batteries in a fire.
- Do not attempt to add external batteries to your UPS system.

Mounting

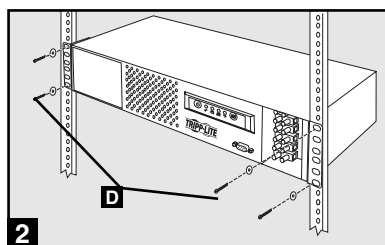
Your UPS may be rackmounted in 4- or 2-post racks or on a DIN rail using these suggested mounting procedures. The procedures are for common rack/rail types and may not be appropriate for all configurations. User must determine the fitness of hardware and procedures before mounting.

Suggested Rackmount Installation

- 1** Attach mounting ears (A) to the front mounting holes of the UPS (B) using the screws provided (C).

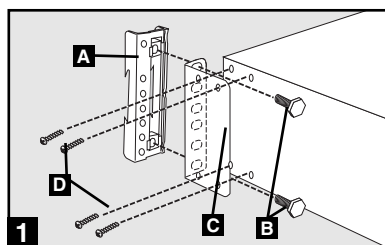


- 2** Have an assistant lift the UPS and hold it in position with the mounting ears flush against the rack's side supports. Mount the UPS by screwing user-supplied rack hardware (D) through its mounting ears, and into the rack's side supports.

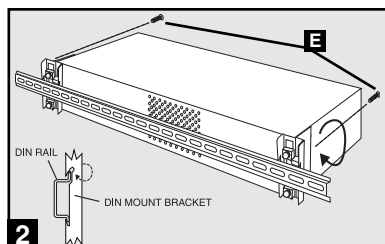


Suggested DIN Rail Installation

- 1** Attach the DIN mounting brackets (A) to the mounting ears by lining the brackets' captive nuts up with the mounting ears' holes, then attaching them with the bolts provided (B). Attach mounting ears (C) to the rear mounting holes of the UPS using the screws provided (D). Note that there is a left mounting bracket and a right mounting bracket; the deeper slot of each should be on top.



- 2** Hang the UPS on the DIN rail by inserting the DIN rail's top into the top (deeper) slots of the DIN mounting brackets, then ease the UPS into a horizontal position so that the DIN rail's bottom fits into the mounting brackets' bottoms. Fasten the UPS into position with the screws provided (E).



Connection

1 Hardwire the UPS's input to utility power and its output to its load.

Consult a qualified electrician and follow all applicable electrical codes and requirements.

Your UPS is designed to support only computer equipment. You will overload your UPS if you connect household appliances, laser printers or surge suppressors to the UPS's output.

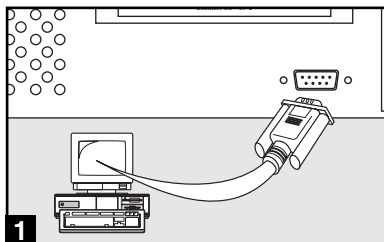
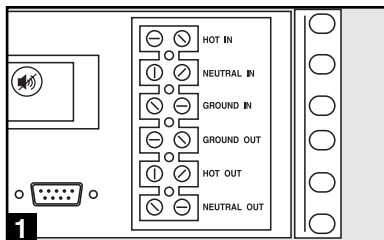
- Turn utility power off before connecting it to the input of your UPS.
- Connect the incoming ground wire to the GROUND IN (green & yellow) terminal.
- Connect the outgoing ground wire to the GROUND OUT (green & yellow) terminal.
- Connect the incoming hot wire to the HOT IN (brown) terminal.
- Connect the incoming neutral wire to the NEUTRAL IN (blue) terminal.
- Connect the outgoing hot wire to the HOT OUT (black) terminal.
- Connect the outgoing neutral wire to the NEUTRAL OUT (white) terminal.
- Turn utility power on. Your UPS will perform a self-test. The UPS will enter ON mode. The LINE POWER “✓” LED will be on.

Your UPS is now ON and its AC output is active.

Your UPS will function properly without these connections.

1 DB9 Port Connection

Using the DB9 cable provided, connect a DB9 port on your computer to a DB9 port on your UPS. Install Tripp Lite power protection software. If your UPS features 2 DB9 ports, a second computer with a DB9 port may be connected if desired.




Basic Operation


Buttons




Use the **POWER** button to switch your UPS between its four modes of operation.

OFF: No indicator lights are on. The UPS is completely shut down for storage or shipping. If the UPS is connected to AC power, it will start up in **STANDBY** mode. If the UPS is not connected to AC power and the **POWER** button is pressed for two seconds, the UPS will “cold start” into **INVERT** mode.

STANDBY: The “” light is flashing. The UPS is receiving AC power and using it to charge its batteries. Its output is active, but if AC power is lost the UPS will not provide battery backup support to connected equipment. Pressing the **POWER** button while the UPS is in **STANDBY** mode will put the UPS in the **ON** mode. Cutting AC power to the UPS while it is in **STANDBY** mode will put the UPS in the **OFF** mode.

ON: The “” light is on. The UPS is receiving AC power, charging its batteries and delivering power to connected equipment. If AC power is lost while the UPS is **ON** (i.e. a blackout occurs), the UPS will switch into **INVERT** mode. Pressing the **POWER** button while the UPS is **ON** will put the UPS in **STANDBY** mode.

INVERT: The “” light is flashing. The UPS is powering connected equipment from battery backup. If AC power is restored, the UPS will switch to the **ON** mode. Pressing the **POWER** button while the UPS is in **INVERT** mode will put the UPS into the **OFF** mode. If the UPS is in **INVERT** mode and its batteries are drained, the UPS will switch to the **OFF** mode until AC power is restored, then switch to the **ON** mode.

Basic Operation *continued*

Buttons *continued*

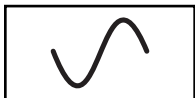


Use the **MUTE/TEST** button to do two things:

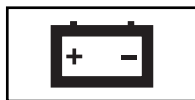
SILENCE ALARM: Your UPS has three alarms. The first, the **INVERT** alarm, emits four short beeps every ten seconds when the UPS is in **INVERT** mode, to warn you that AC power has failed. The second, the **OVERLOAD** alarm, emits short, rapid beeps when the UPS is in **INVERT** mode if the total power draw of connected equipment exceeds the UPS's output capacity to warn you to reduce the load. The third, the Low Battery alarm, emits a constant beep when the UPS is in **INVERT** mode and its batteries are very nearly depleted, to warn you that connected equipment must shut down. To silence the **INVERT** or **OVERLOAD** alarms, press the **MUTE/TEST** button. The **LOW BATTERY** alarm will only stop when the UPS switches to the **OFF** or **ON** mode.

SELF-TEST BATTERIES AND ALARMS: If your UPS is in the **ON** mode and has a load connected, you may test its batteries by pressing the **MUTE/TEST** button for two seconds. The UPS will switch to **INVERT** mode for several seconds. Normally, the **INVERT** alarm (four short beeps) will sound, indicating that the system is working properly. If the **OVERLOAD** alarm (short, rapid beeps) sounds, reduce the load on the UPS. If the **LOW BATTERY** alarm (a constant beep) sounds, your UPS's batteries may need replacing or the batteries may simply be less than fully charged. Let the UPS charge for twelve hours, then perform a second self-test. If the **LOW BATTERY** alarm sounds again, contact Tripp Lite for service. It is likely your UPS requires a battery replacement. Tripp Lite offers a complete line of UPS System Replacement Battery Cartridges (R.B.C.). Visit Tripp Lite on the Web at www.tripplite.com/support/battery/index.cfm to locate the specific replacement battery for your UPS.

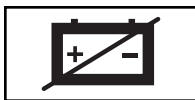
Indicator Lights



LINE POWER: This green light will turn ON whenever your UPS is receiving normal AC line power. It will flash while the UPS is in **CHARGE ONLY** mode to indicate that the UPS will not provide battery backup during a blackout or brownout.



BATTERY POWER: This yellow light will turn ON when your UPS is providing your equipment with battery power.



BATTERY CHARGE: This red light will turn ON continuously after the UPS runs a self-test to indicate that the UPS's battery is weakly charged. If it remains lit after you have allowed the UPS to charge for twelve hours and run a second self-test, contact Tripp Lite for service. It is likely your UPS requires a battery replacement. Tripp Lite offers a complete line of UPS System Replacement Battery Cartridges (R.B.C.). Visit Tripp Lite on the Web at www.tripplite.com/support/battery/index.cfm to locate the specific replacement battery for your UPS.

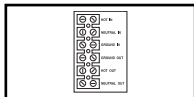
Basic Operation *continued*

Indicator Lights *continued*

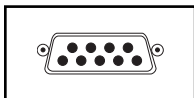


OVERLOAD: This red light will turn ON continuously when the UPS is providing power from battery to indicate that the UPS's inverter is overloaded. If it is lit, immediately remove some of the equipment connected to the UPS. Large overloads may cause your UPS to shut down.

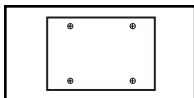
Other UPS Features



AC Power Terminals: These six terminals receive the UPS's AC input and distribute the UPS's AC output. See Connection (page 4) for an explanation of how the terminals should be wired.



Smart DB9 Port: Your UPS has a DB9 port that may be used to connect the UPS to a DB9 port on any workstation or server. Use with Tripp Lite cabling and PowerAlert Software to monitor and manage network power and automatically save open files and shut down equipment during a blackout (see Connection, page 4).



Battery Door: All Battery Warnings must be observed (see Important Safety Warnings, page 2). Tripp Lite offers a complete line of UPS System Replacement Battery Cartridges (R.B.C.). Visit Tripp Lite on the Web at www.triplite.com/support/battery/index.cfm to locate the specific replacement battery for your UPS.

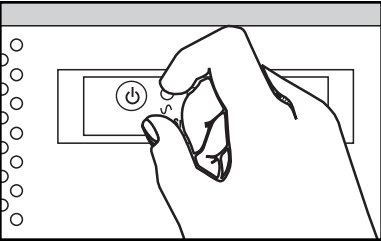
Automatic Voltage Regulation (Internal)

During brownouts, your UPS will automatically correct low AC line voltage. When automatic voltage regulation is operating, your UPS will click gently. This is a normal, automatic operation of your UPS and no action is required on your part.

Storage & Service

Storage

Before storing your UPS, disconnect all equipment to avoid battery drain, then place the UPS in the OFF mode by putting it in STANDBY mode, then disconnecting it from utility power (see Basic Operation). Press the POWER button. The alarm sounds one short beep. The UPS system will not be active until the UPS is turned ON. If you store your UPS for an extended period of time, recharge the UPS batteries once every three months by following Steps 1 and 2 in the Connection section and allowing the UPS to charge its batteries for 4-6 hours before placing it back in storage. If you leave your UPS batteries discharged for an extended period of time, they will suffer a permanent loss of capacity.



Service

If returning your UPS for service, contact your local Tripp Lite dealer or distributor. They will refer you to a service center. Please carefully pack the UPS using the ORIGINAL PACKING MATERIAL that came with the unit. Enclose a letter describing the symptoms of the problem. If the UPS is within the 2 year warranty period, enclose a copy of your sales receipt.

Specifications

| | |
|---------------------------------------------------|---------------------|
| Model: | OM500RMX |
| Output Capacity (VA/Watts): | 500/300 |
| Battery Runtime in Minutes (Half Load/Full Load): | 17/5 |
| Battery Recharge Time: | 2-4 hrs. |
| Approvals: | FCC Part 15 Class A |

Input Voltage (120V); Input Frequency (60 Hz); Online Input Voltage Range (79-147 volts); Voltage-Regulated Output Voltage Range (120 \pm 9%); On-Battery Output Voltage Range (115 \pm 5%); Output Waveform Line Mode (filtered sine wave); Output Waveform Battery Mode (PWM sine wave); AC Surge Suppression (exceeds IEEE 587 Cat. A & B standards); AC Noise Attenuation (>40 dB); AC Surge Protection Modes (H to N, H to G, N to G).

This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

Tripp Lite has a policy of continuous improvement. Specifications are subject to change.